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Author(s): Yves Charbit and Arundhati Virmani

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The Political Failure of an Economic Theory: Physiocracy

Yves CHARBIT*

Historiography has completely reconsidered the place of demographic thought in eighteenth-century political economy. Yves Charbit presents these new approaches through an examination of the Physiocrats. This contribution to the Enlightenment considered the number of people, the factors determining it, and its effects on the economic well-being of the nation. The author compares the Physiocrats' arguments with those of Malthus, examines their fierce opposition to mercantilism, and in the process gives an analysis of the historical causes of their political failure. He highlights the genesis of their fundamental theoretical contribution – agriculture is the exclusive source of a country's wealth – and its consequences in terms of population. The analysis of their failure makes it possible to situate ideas in their historical context.

One overwhelming fact was obvious to all contemporary observers at the end of the ancien régime: in this large and fundamentally rural kingdom of France, the economic weight of agriculture could not be ignored. "All the authors of the period, Utopists, exiled Huguenots, Economists (...) valued the cultivation of land" and, for Vauban and Boisguibert especially, "agricultural activity has a primacy that is both historical (in the development of humanity) and logical (in the causal explanation of the productive process)", notes Jean-Claude Perrot⁽¹⁾. A third reason can be added: land's symbolic value, since the acquisition of land was the key to gaining titles of nobility for the bourgeoisie of the seventeenth and eighteenth centuries.

It is therefore appropriate to relate ideas on population to the thinking about agriculture. Physiocracy — the "rule of nature" — presents a twofold originality in relation to the other intellectual currents of the period. It holds agriculture to be the exclusive source of wealth, and on this con-

^{*} Laboratoire Populations et Interdisciplinarité, Paris V. Translated by Arundhati Virmani. (1) Perrot, 1988, pp. 509, 520.

viction it bases the first theoretical account of the relations between the rural economy and population. Following Adam Smith, who believed that no one had come closer to the truth in the field of political economy than the Physiocrats, they are generally acknowledged as the first to have developed a coherent economic theory. They achieved a major theoretical advance by creating a model of demo-economic growth based on the income of landed capital — they called it "the net product" — which inspired Marx to develop the concept of surplus value(2). For the Physiocrats, agricultural production regulates population; more specifically, the number of men, their geographical distribution, and their living conditions, are determined by the land rent. Classical political economy (in the work of Smith and later of Malthus and Ricardo) took up this idea, but extended it to all sectors of economic activity. The level of production regulates the size of the population, and the adjustment takes place in the labour market through the wage rate.

The "Physiocratic movement" developed under its leader, François Quesnay (1694-1774)⁽³⁾. He had few disciples. Marquis Victor Riqueti de Mirabeau (1715-1789), father of the famous revolutionary, publishes L'Ami des hommes ou Traité de la population, which will be widely distributed and read, in 1756. Less well known are Pierre Mercier de La Rivière (1720-1793), Guillaume-François Le Trosne (1728-1780), the Abbé Nicolas Baudeau (1730-1792), and Pierre-Samuel Dupont de Nemours (1739-1817). Their loyalty to the master's thought, or rather their rigid orthodoxy, means that the essence of Physiocratic thought is in fact contained in the writings of Quesnay, particularly the articles published in the Encyclopédie⁽⁴⁾.

For the diffusion of their doctrines, the Physiocrats rely on several periodicals, and in particular the *Ephémérides du citoyen* published between 1765 and 1772. They make followers among rulers in Europe and beyond — the Grand Duke of Tuscany, the Margrave of Baden, Catherine II

⁽²⁾ A large literature exists on the place of the Physiocrats in economic thought, which is beyond the scope of this study. Schumpeter (1997) considers Quesnay superior to Adam Smith on several points and evaluates his contribution to economic analysis very positively. For a more complete discussion of certain concepts and possible affinities with other currents, see Meek, 1962, especially the second half of the volume (concerning, for example, the theory of profit, the general Walrasian equilibrium, hoarding and the multiplier in Keynes, the theoreticians of underconsumption, and more generally the convergences and divergences with classical English political economy). For the influence of Quesnay on Adam Smith, see Ross, 1984. On the doctrine of sterile classes and the resulting contradictions for the analysis in terms of flow, see Herlitz, 1961. On the theory of fundamental price, which paved the way for Adam Smith, and on the analysis of the role of different classes in production, cf. Vaggi, 1987, pp. 58-93, 169-173. On the Physiocratic origins of Jean-Baptiste Say's law of markets, see Spengler, 1945a and 1945b. On the reformulation of the *Tableau économique* as a Léontief matrix, see Phillips, 1955. On Marx, see Malle, 1976.

⁽³⁾ Weulersse, 1910, vol I and vol. II. On Quesnay himself, one may consult the richly detailed biography drawn up by Jacqueline Hecht, 1958.

⁽⁴⁾ Some of their contemporaries accused them of being a sect. Given the numerous repetitions from one author to another, we will regroup the references to the writings of the different Physiocrats in a note at the end of each paragraph. For Quesnay's works, all references are to the INED edition.

of Russia who invites Mercier de La Rivière, Joseph II, and Jefferson with whom Dupont de Nemours corresponds regularly⁽⁵⁾. Their theories are put into practice at a political level. Free trade in grain, nationally and even internationally, is instituted between 1763 and 1770 by the reforms of comptroller general of finance Bertin and his successor L'Averdy, and then under the ministry of Turgot (edict of 13 September 1774). The Physiocrats thus witness the triumph of their ideas. But this success will prove short-lived: seven years of free trade between 1763 and 1770, and two years under Turgot between 1774 and 1776. With Turgot's fall in 1776, France returns to the old protectionist legislation.

The fact is that the Physiocrats' social base was extremely narrow. According to the American historian Norman J. Ware,

"The Physiocratic theory, then, arose out of the special needs of a new landowning class under a bankrupt monarchy and a fiscal system inherited from the past. The problem of these new landowners was to rid themselves of the innumerable taxes of the ancien régime which fell of necessity upon the land and made profitable farming impossible. Thus the single fixed tax on the net product of the land and freedom of trade in grain were their basic economic reforms. Out of these and the class interest of the Physiocrats came the reinterpretation of wealth, money and value, and, as an extreme form of this class interest, the doctrine of the sterility of trade and industry" (6).

Talking of "class" is inaccurate here. Within a largely static and stagnant agricultural sector, Physiocratic ideas won over a number of producers, noblemen or wealthy farmers, who were keen on efficiency, open to technical innovations and equipped with a capitalist mentality for managing their land. This simplified representation of French society of the period also fails to allow for the power of corporatist interests. These were so strong that the demand of merchants and manufacturers for free trade was transformed into outright hostility as soon as their own activities needed protection⁽⁷⁾.

The detailed survey of groups favourable or hostile to the Physiocrats drawn up by Weulersse (1910) appears closer to reality. They are supported by some Agricultural Societies of which they are also members (Paris, Orléans, Soissons, Rennes and Limoges), by Academies (Caen), by five of the *Parlements* (Toulouse, Aix, Grenoble, Rouen, Rennes) though only the first three will remain loyal to free trade in grain when its implementation produces increasing opposition. Some newspapers are well disposed toward them, and the Physiocrats recruit a number of supporters among young noblemen in certain salons. Relations with the Encyclopedists were initially good though they deteriorated progressively through the years. Their opponents are the corporate bodies protected by various monopolies, and the traders, merchants and manufacturers who do not understand that industry must be sacrificed to agriculture. Predictably,

(7) Léon, 1993b, pp. 647-648.

⁽⁵⁾ Delmas, Delmas and Steiner, 1995 give an accurate summary of this aspect.

⁽⁶⁾ Ware, 1931, p. 618.

they meet with the suspicion or open hostility of all who benefit from the numerous duties and taxes and of those who, in the name of the King, are responsible for collecting them (farmers-general and fiscal agents in general). The *intendants généraux*⁽⁸⁾ and the police authorities are also opposed, because they fear the disorders that measures relating to a product like bread could cause, as will indeed be the case⁽⁹⁾.

Two apparently separate questions need to be answered. At the theoretical level, why is population a variable dependent on agricultural production? And why was the Physiocratic movement a political and doctrinal failure? Our view is that these two questions are in fact inextricably linked and must be answered together, precisely because Physiocratic doctrine, whether political or economic, is based on a theoretical construct of which the demographic component is merely an expression. In other words, our analysis will constantly take place upstream from the ideas on population. The importance given to agriculture, which the Physiocrats consider the sole generator of wealth (I) is the key to understanding their theory of population (II). The historical causes of their failure (III) are economic and political in nature: they too must be analysed in terms of both theory and doctrine.

I. Agriculture and prosperity

1. The sterility of industry and trade

For the Physiocrats — and this is a central tenet of their theory of production — neither industry nor commerce generates wealth. How can this be explained? According to Joseph J. Spengler, this conception is a distant legacy of the Middle Ages when work and land were the only sources of wealth⁽¹⁰⁾. The merits of that argument are hard to evaluate at such a general level. A more plausible explanation is that the Physiocrats developed their theory in the light of the actual situation of the French economy, about which they were well informed thanks to the Agricultural Societies and a well-developed network of correspondents, as Jean-Claude Perrot has shown⁽¹¹⁾. Some features of that situation are worth recalling. Agriculture employs the great majority of the population and contributes four-fifths of the country's wealth, not counting the significant share of so-called industrial production of consumer goods and equipment (textiles,

⁽⁸⁾ The representative of the King at the head of a *généralité*, the main administrative subdivision of the country (translator's note).

⁽⁹⁾ For example, comptroller general Terray sends a circular to the province *intendants* on 1 October 1770, asking their opinion on the freedom to export. Only three out of twenty five *intendants* are favourable. Cf. Charles, 1999, p. 57.

⁽¹⁰⁾ Spengler, 1958, pp. 55-74. (11) Perrot, 1992, pp. 220-236.

small metallurgy for example) that is in fact carried on in cottage industry conditions as an activity complementary to agricultural work. The land-owning class as understood by the Physiocrats (the king, the receivers of tithe, and the landed proprietors, all of them non-manual and non-peasant), represents 6% to 8% of the kingdom's population, owns 50% of the landed capital, and receives the totality of rents from tenanted and sharecropped holdings, and of taxes⁽¹²⁾. The mass of the peasant population, organized in small family farms, practises a subsistence agriculture that produces the essential minimum, with virtually all income being absorbed by food requirements. Finally, exports as a source of revenue concern principally foodstuffs or processed commodities such as wine. In these conditions, the Physiocrats find it hard to conceive that industrial production, which was still of marginal economic importance, could generate wealth in France.

A second explanation, not incompatible with the first, refers back to the quotation from Norman Ware. The Physiocrats elaborated their doctrine in almost natural opposition to the mercantilists. But as the Physiocrats observe the industrial and commercial wealth of England and Holland, they have to recognize that two other models of economic development are possible: international trade and industrialization. Quesnay, who argues for an efficient and highly productive agriculture, therefore has to prove that the two other sectors do not constitute satisfactory alternatives for ensuring the prosperity of the kingdom. At several points, he mentions the example of trading nations. Commerce has indeed been a source of prosperity for Holland, Hamburg, Genoa, but it is important to ensure that the nation exports essential goods first and foremost (Quesnay is in fact thinking of grain). The political argument recurs again and again: that the nation can do this proves that its independence is guaranteed. Similarly, when despotism ruins agriculture, only trade is possible, because wealth can be concealed or transported. Such is the fate of the Barbary Coast and of Turkey. In any case, commerce is an inadequate basis for the prosperity of a great nation(13).

As for industry, Quesnay contrasts two alternative models to prove that it is a less beneficial source of prosperity for the nation than agriculture. If labour is employed in industry, its will be at the expense of agricultural production, and because industry is "sterile" national income will be much lower. If on the contrary agriculture is prosperous, the country can cumulate several sources of wealth. In addition to exporting its agricultural surplus, it can even benefit from an immigration of manufacturers and craftsmen, which will stimulate demand for agricultural products on the national market and allow it to increase the export of manufactured

(12) Labrousse, 1993c and for the beginnings of industrialization, Léon, 1993a.

⁽¹³⁾ François Quesnay et la physiocratie, 1958, "Hommes", pp. 544, 557, 568; "Grains", p. 502; "Impôts", pp. 587-588; "Lettre de M. N. aux auteurs, etc." pp. 825-830 (this is a letter published in June 1766 in the *Journal de l'Agriculture*); Mercier de La Rivière, 1767, II, pp. 323-324; Le Trosne, 1846, pp. 965-968, 979-981 (First edition 1777).

products. In fact, Quesnay puts forward a macro-economic model of development based on agriculture and strengthens his case by using political arguments, as illustrated by his insistent refutation of international trade. By taking labour away from agriculture, international trade harms the country's population and wealth and hence its political strength. This is the exact opposite of the mercantilist standpoint⁽¹⁴⁾.

2. The net product

Agriculture alone can generate wealth. This idea is formalized in the Tableau économique of 1758, with its central concept of produit net or "net product". Society is divided into three classes: the productive class (farmers and those working in the sectors categorized with agriculture: fishing and mining); the proprietary class (the king, the tithe holders, and the other landed proprietors); and finally the sterile class, composed of craftsmen, industrial workers and "bribed workers" (this is the tertiary sector: merchants, functionaries and domestic servants). The latter class is defined as sterile because it does not contribute to the creation of agricultural wealth; it only transforms it into consumer goods other than food or capital goods. Each year, agricultural production will give rise to a circulation of produce and consequently to monetary flows. For example, farmers will buy tools and goods from artisans of the sterile class while paying a rent to the landlords, etc. From these monetary exchanges, the proprietors derive a revenue, the net product, which will allow them, at the start of the next year, to buy agricultural produce from farmers and objects from the sterile classes. The functioning of the system is therefore based on the profit generated in agriculture, because the other classes, it will be remembered, live from the net product and are "sterile". The only way to increase the nation's prosperity is to maximize the net product by making agriculture as efficient as possible⁽¹⁵⁾. This is precisely the purpose of the discussions devoted to English agriculture, which Quesnay admired as did all his contemporaries.

3. The English example

Agriculture could be a source of prosperity for the kingdom, on condition that it be organized rationally. The technical and economic superiority of the English model is a recurring theme and the argument is based on a concrete analysis of the modes of production. In France it is desirable

⁽¹⁴⁾ François Quesnay..., 1958, "Grains", pp. 497-498.

⁽¹⁵⁾ Fox-Genovese rightly emphasizes the originality of Mirabeau, "the eldest son of the doctrine", too often considered as a not very original disciple of Quesnay. His semi-feudal ideas make him hostile to an overly capitalist agriculture, which would destroy the social system (Fox-Genovese, 1976, pp. 135-166 and particularly, pp. 144; 150-153, 161). On Mirabeau's and Quesnay's different conceptions of agriculture, see Longhitano, 1999.

to substitute horses for oxen as a source of animal traction, extend artificial pastures in order to keep more livestock, especially sheep, improve the soil, develop agricultural implements and more generally, carry out investments⁽¹⁶⁾. At the micro-economic level, the verdict is unambiguous: Quesnay contrasts the poor cultivator with the rich farmer, a genuine entrepreneur who invests "to increase profits". The argument continues at the macro-economic level. Regarding the balance between production and population, the superiority of large-scale agriculture is incontrovertible. For Quesnay, large-scale agriculture is the most productive and even in a densely populated kingdom small-scale agriculture is undesirable. The chief justification for the latter — the possibility of using abundant labour — is, he claims, fallacious: men are inefficient producers, and they constitute a mass of consumers to feed. Large-scale agriculture, by contrast, which generates a marketable surplus, is able to meet the demand for $food^{(17)}$.

An important reasoning follows from the analysis of the conditions of production. Quesnay insists that it is not arms that are in short supply, as "city dwellers naively believe", but capital, an opinion widely shared by his contemporaries. Mirabeau, for his part, suggests "pouring back" foundlings into the countryside to increase labour and improve the network of roads. Competition between the labour needs of the countryside and of the cities will increase in the nineteenth century, with a constantly growing rural exodus against a background of declining birth rate. But this is not the context in which Quesnay is writing. He is primarily concerned with making agriculture the motor of economic growth. His entire argument centres on two players, the wealthy farmer and the proprietor, who incarnate economic rationality. Their individual activity has positive consequences at the macro-economic level, as is logical in a system where collective interest is the sum of individual interests. But it also has political advantages which, as is often the case with Quesnay, are inseparable. By creating rural employment, farmers help to sustain the rural population and, in the final analysis, the power of the state:

> "It is their wealth which fertilizes the land and multiplies the livestock, which attracts and settles the inhabitants of the countryside, and which makes for the strength and prosperity of the nation"(18).

Let us conclude for the time being with three epistemological observations concerning Quesnay's main theoretical contribution, the Tableau

⁽¹⁶⁾ Meek (1962, p. 305), notes that Quesnay, who was well aware of the importance of investments in industry, considered that investment in agriculture was even more vital. At the end of an analysis of Quesnay's model of growth, Eltis (1975b) reaches a similar conclusion: the central problem was the achievement of growth in a fundamentally rural economy where land was not rare, but yields were low for lack of capital investment.

⁽¹⁷⁾ On investments: François Quesnay ..., 1958, "Fermiers", pp. 428-436, 439, 451, 454; "Grains", p. 482. On the macro-economic analysis: "Grains", p. 483.

(18) François Quesnay ..., "Fermiers", pp. 437-454; "Hommes", p. 568; "Extrait des économies royales de M. de Sully", p. 671. Contemporaries who believed in the lack of capital included Morellet, Boisguillebert, some Parlements and intendants. See Weulersse, 1910, I, pp. 322-338. The last quotation is from "Fermiers", p. 454.

économique and the concept of net product. The idea of circulation and flow can be linked first to the state of knowledge in the eighteenth century. Just as the natural social order echoed the Newtonian physical order, so Harvey's discovery of the circulation of blood, which revolutionized the understanding of the human body in the previous century, undoubtedly gave Quesnay, a trained surgeon, the idea for the circulation of wealth depicted in the *Tableau économique*. But it would be wrong to see this as evidence of a close relationship between curative medicine and political economy. What is significant is not the notion of healing, but the interpretation in terms of organic functioning⁽¹⁹⁾.

Joseph Schumpeter suggests a different analysis of the flow symbolism. According to him, Quesnay sees the notion of the circuit as a demonstration of the complementarity and even solidarity between the social classes, whereas Adam Smith, far more realistic, believes rather in the profound rifts that divide them, his sympathy being with the poor day labourers (20). Gino Longhitano argues that in less than ten years, between the first editions of the *Tableau économique* in 1756-1757 and the first articles ("Fermiers", "Grains") published in the *Encyclopédie*, and those on the Natural Order of 1765-1766 and the work by Mercier de La Rivière, the Physiocrats moved from political economy to the "construction of a social philosophy". The three classes of expenditure became the social classes (proprietor, productive, sterile). Mercier's theoretical contribution is decisive because he shows that this new element participates in the order of nature and he bridges the gap between economic themes and natural order:

"The existence of these three classes arose from the basic natural order that governs the formation of political societies. The zigzags of the *Tableau* must now be considered as the key to this order". And accordingly, "the science which we believe we have discovered within the economic sphere will become the science of politics in general" (21).

Finally, quantitative information has a twofold nature for Quesnay. On the one hand, in keeping with his contemporaries' enthusiasm for agriculture, and like the thinkers of the agronomic school, he bases his analysis on solid empirical evidence supplied by a network of correspondents. On the other hand, the diagram of the *Tableau économique* contains purely theoretical numbers, which purport to illustrate the annual flows of exchanges between social groups. This is why Jean Molinier analysed the *Tableau économique* as a tentative exercise in national accounting⁽²²⁾. If Quesnay did not use the real numbers which were available, it was because his main concern was to demonstrate dynamics rather than to portray reality. Philippe Steiner is therefore correct to see a contrast between medicine and the new science of political economy that Quesnay wants to

⁽¹⁹⁾ Foley, 1973; Fox-Genovese, 1976, p. 79.

⁽²⁰⁾ Schumpeter, 1997, pp. 186, 234.

⁽²¹⁾ Longhitano, 1992, pp. VIII-IX (facsimile re-edition). For a similar point of view, see Cartelier, 1991, p. 12.
(22) Molinier, 1958.

establish. But he is wrong to write that if for the former clinical experience is indispensable, for the latter "objective data" have to be integrated in a theoretical operation which alone gives them meaning, for arbitrary numbers cannot provide the basis for inductive reasoning. One point, however, is common to both disciplines: for Quesnay, knowledge originates in the senses, but by the exercise of reason it is possible to avoid the traps of sensualism⁽²³⁾.

The ideas on population lead to a similar conclusion: they refer to an analysis in terms of classes and social behaviour (for example, luxury). The political implications of economic choices are ever present (taxation, the army); finally and above all, even if Quesnay is aware, for example, of the concrete problems of labour in agriculture, the effort to think in terms of theory is undeniable.

II. On population

The principal consequence of the belief in a natural order is a shift away from doctrinal positions like those developed by the mercantilists, and towards a theoretical analysis of the relationship between agriculture and population presented as conforming to a universal scientific truth. In no sense does this preclude using the question of population for ideological purposes. Rousseau, Montesquieu, Herbert and many others (in England the controversy opposes Wallace and Hume) see depopulation as the sign of bad government. Quesnay is convinced that the population of France has declined, and for Mirabeau who shares this opinion, the cause lies not in clerical celibacy, wars, overly large armies, or emigration, but in the decay of agriculture and in luxury. Nor does he believe, contrary to Hume, that cities are "an enormous abyss for the population": on the contrary, they benefit from foreign immigration⁽²⁴⁾. More generally, the Physiocrats have been influenced by some authors and in turn have influenced others, for example, Cantillon and Lavoisier⁽²⁵⁾. Some of these influences will be evoked in the following pages. The case of Mirabeau is special. In the first three parts of L'Ami des hommes, Mirabeau draws heavily on Cantillon. These pages were written before Quesnay "converted" him to Physiocracy after a stormy and memorable discussion. In contrast, the

⁽²³⁾ Steiner, 1998, pp. 29-35. Also see François Quesnay..., 1958, "Evidence", pp. 410, 425.

⁽²⁴⁾ François Quesnay..., 1958, "Hommes", pp. 513-514. See Mirabeau, 1758, book I, chap. 2, pp. 16-19 on the depopulation of France, pp. 22-29 on religious communities, p. 142 on towns and cities. The first edition of Mirabeau's work dates from 1756; Cantillon's book was published in 1755, but Mirabeau was aware of the manuscript well before.

⁽²⁵⁾ For the decisive influence of Cantillon on Quesnay, see Meek, 1962, pp. 268-269. Before his conversion to Physiocracy, Mirabeau used a formula typical of popularized Malthusianism and directly modelled on Cantillon: "men multiply like rats in a barn if they have the means to subsist" (Mirabeau, 1758, book I, chap. 2, p. 15). Cantillon had written: "mice in a barn".

next three parts, published later, were read over and corrected by Quesnay. They are a faithful statement of Physiocratic orthodoxy.

1. Population, a dependent variable

Since the agricultural sector alone is productive, the growth of population depends on an increase in the net product of landed property. Industry cannot induce demographic growth; it can even "be injurious to population" if it deprives agriculture of labour and thereby leads to a reduction in the net product. In any case, and this is a key point, the number of people is a dependent variable. On this subject, the position of Charles Stangeland in his exploration of the origins of Malthus' thought is simplistic when he asserts that the Physiocrats "had stated with considerable clearness the dependence of population on subsistence"(26). In fact, what is involved is not at all a straightforward relationship between population and subsistence. What matters for the Physiocrats is the occurrence of a prior growth in agricultural output. For example, the transition from a pastoral or hunting economy to agriculture makes the growth of population possible. For Dupont de Nemours, if population has been observed to double in the north-American colonies every twenty-five years, this is "because cultivation is constantly making new progress there" (27).

The main features of Malthusian demo-economic analysis and of classical analysis in general are sketched out here. In the introduction we recalled that demand for labour (agricultural production for the Physiocrats) regulates supply (which for them, as for the classical economists, is population). Let us have another look at this mechanism that will be formalized by the classical economists. When economic conditions are favourable, employers seek to employ more labour to satisfy the demand for produce. Because the demand for labour (production) faces a population whose size is fixed in the short term, the law of supply and demand on the labour market will cause wages to rise. Workers are encouraged to marry earlier, and if they are married, to increase their fertility in order to benefit from the extra wages their children can earn. This is true for the rural world but also for industry, since in the early stages of capitalism - the theories of Smith, Malthus and Ricardo are based on their firsthand observation — children are put to work very early. Population thus increases in response to production. Conversely, if the economic situation deteriorates, the demand for labour decreases and population growth is

⁽²⁶⁾ Stangeland, 1966, p. 255.

⁽²⁷⁾ François Quesnay..., 1958, "Grains", pp. 496-497. On this point, see Landry, 1958, pp. 18-19. The same opinion is found in Mercier de La Rivière (1767, II, p. 169), and in Mirabeau: "the measure of subsistence is that of the population" (1758, p. 19) and book III, chap. 5, pp. 106-107 on the pastoral economy. The argument is reiterated in the summary of the work: book III, chap. 8, pp. 208-210. Dupont de Nemours, quoted by Schelle, 1888, p. 121 (the article concerned appeared in 1771 in Ephémérides du citoyen); also see Dupont de Nemours, 1846b, pp. 370-371.

checked (thanks to a rise in age at marriage and resort to contraception within marriage). Mortality may even strike the social groups that are at the margin of subsistence.

Quesnay's theoretical contribution is less sophisticated but the essential features are present. Population growth, he writes, "depends entirely on the increase of wealth, on the employment of men and the use of wealth..." The same applies to one of the modes of demographic growth, immigration (or emigration), which depends on the course of economic activity and on the degree of "religious tolerance" of the state. Like many of his contemporaries and in particular Voltaire, Quesnay has in mind the exodus of the Protestants. On the other hand, he does not develop as precise an analysis as Cantillon, for whom nuptiality and fertility are responding to the increase of wealth initiated by the "proprietors of land" (28).

But if Quesnay, like the classical economists, considers from a dynamic point of view that production governs population through the demand for labour, the empirical evidence about the working of French agriculture leads him to a concern, at a purely static level, for the outlets of production. According to him, the population was large enough in relation to the size and fertility of the territory, lest internal demand be insufficient to absorb agricultural production⁽²⁹⁾. Considerations of this kind have fostered uncertainty about Quesnay's ideas on population and given the impression that he is at times populationist.

The cultivation of vineyards provides an opportunity to develop an analysis of intersectorial relations (between agriculture and trade in this case) and an approach to the optimum allocation, this time within agriculture, of two of the three factors of production, labour and land. He sees vineyards as especially worthy of attention because they allow the maximization of population and net product — today we would refer to the demographic growth induced by employment and the distribution of income. It requires an abundant labour force and consequently, "population will increase in proportion to the increase in annual wealth resulting from the increase in the cultivation of vineyards". In addition, "the most wealthy branch of cultivation in the French kingdom" offers the advantage of earning revenue through exports. Pursuing the theme of the optimum use of land as a factor of production, Quesnay extends his reflection to the entire agricultural sector and advocates the use of less fertile land for other uses (pasture, mulberry trees, minor cereals, etc.), which would

⁽²⁸⁾ The first quotation, often referred to, is in *François Quesnay...*, 1958, "Hommes", p. 537. Mercier de La Rivière (1767, I, p. 66) wrote: "The wealth of annual harvests is a measure of the population". On the question of intolerance: François Quesnay..., 1958, "Hommes", pp. 517, 525. On the relation between this problem and liberalism, see Laski, 1962, pp. 87, 92 (with reference to Bayle), 101, 114. The disastrous economic consequences of the revocation of the Edict of Nantes were obvious to Quesnay's contemporaries. For Cantillon's analysis, cf. Cantillon, 1952, pp. 37-43.

(29) *François Quesnay...*, 1958, "Grains", pp. 506-507.

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strengthen livestock farming, improve human diet, and thus increase the population⁽³⁰⁾.

The theory of the wage also follows from that of the net product. Both move in the same direction. The argument runs thus. When the net product is high, landed proprietors can distribute higher nominal wages provided they do not hoard but reinvest their profits, which Quesnay believes they will because their behaviour is rational⁽³¹⁾. It should be noted that if the net product were not reinvested it would turn into a sterile "nest egg" which would slow down economic growth. In this Quesnay anticipates the analysis of effective demand made by Malthus in his Principles of Political Economy and more especially, as Schumpeter notes, that by Keynes⁽³²⁾. Let us assume that the net product is indeed reintroduced into the circuit. Then, even if the price of wheat increases, real wages will increase anyway, because the consumption of food products does not absorb the entire wage⁽³³⁾. The very concrete nature of the argument in favour of agriculture thus makes a theoretical advance possible thanks to a more detailed analysis of the demand for labour: the nature and sectorial distribution of the demand for labour are as important as its total volume.

2. Decorative luxury and subsistence luxury

The question of the uses of wealth — in modern terms, the structure of consumption — underpins Quesnay's position on a theme that runs through the literature on population in the eighteenth century — luxury(34). In all the passages where Quesnay discusses luxury, the direct demographic implications of luxury, as a factor of depopulation, are rare. In Questions intéressantes sur la population, l'agriculture et le commerce, etc.", he denounces "the dominant luxury" produced by "luxury manufactures". They are responsible for spreading consumption habits which are almost "obligatory", so that to satisfy them the individual is induced "to save on propagation or to avoid marriage" (35).

Another ground for the criticism of luxury is hostility to the lifestyle imposed by the Court. Louis XIV had been deeply marked by the Fronde, and his political objectives are known to have included forcing the aristo-

⁽³⁰⁾ See, respectively: François Quesnay..., 1958, "Grains", p. 483; the first quotation is from "Hommes", p. 543; "Maximes générales du gouvernement économique d'un royaume agricole", p. 966 (it is a "Note sur la maxime XIII"); "Fermiers", p. 452. Mirabeau is more sceptical about the markets for wine; at least he wishes to see the vineyards reduced in favour of fields sown with cereals, a source of greater wealth (1758, book III, chap. 2, p. 22-24).

⁽³¹⁾ Spengler, 1942, p. 205, note 175.

⁽³²⁾ Schumpeter, 1997, p. 287.

⁽³³⁾ François Quesnay..., 1958, "Maximes générales...", p. 973. Condillac in 1776 had also observed that "wages are always proportional to the permanent price of grain", when commerce of grain is free (quoted by Spengler, 1942, p. 140-141).

(34) On this point, Spengler (1942) is well documented.

⁽³⁵⁾ François Quesnay..., 1958, "Questions intéressantes sur la population, l'agriculture et le commerce, etc.", p. 664.

cracy to dissipate itself through lavish spending of its revenue at the Court. The allusion is barely concealed:

"Does not this dominant decorative luxury, which forces men into expenditures on clothes and decoration out of proportion to their resources, prevent the proprietor from repairing and improving his possessions? (...) Do not the decorative expenses, which lead to other ostentatious expenditures, constitute a kind of intemperate and destructive luxury? (...) Does it not inspire vain men to all manner of intrigues and irregular expedients to meet the expenses of display?"

But this severe and moralizing description should not mislead. Quesnay was less concerned about the political stakes than about the economic implications of luxury. A few lines later the argument focuses on the problem of wealth creation and he deplores the "concentration of men in the manufactories of luxury to the detriment of agriculture" (36).

Thus we are brought back to agriculture and to the indirect demographic implications of luxury, through an analysis of the distribution of the work force. Men are wrongly directed into sterile sectors that are often hostile to free trade and protectionist in the tradition of Colbert, and this leads to a shortage of arms in agriculture and, as a consequence, to the impoverishment of the kingdom. And as the demand for labour is insufficient, demographic growth is depressed:

"The manufactories and trade fostered by the disorder of luxury accumulate men and wealth in the cities, prevent the improvement of property, devastate the countryside, engender contempt for agriculture, increase personal expenditures excessively, undermine family support, thwart human propagation and weaken the state".

From this demo-economic perspective, it is understandable that Quesnay's hostility to luxury turns to approval when "luxe de subsistance" (luxury of subsistence) is involved, that is, a qualitative improvement in food consumption. In contrast to the "luxe de décoration" (decorative luxury), the latter raises the net product of agriculture. On this point, Quesnay differs from Cantillon who is more favourable to the products of luxury manufactories because he is not defending the same interests⁽³⁷⁾.

3. Economic freedom and population

For the Physiocrats, a failure to respect natural laws means that the wealth of the state will not be maximized. In the economic field, the state should therefore restrict its intervention to protecting private property and free trade, which implies a rejection of Colbertism. In this sense, the Physiocrats are at one with the bourgeois opposition which criticizes the inefficiency of the regulations inspired by mercantilism. In their view one

⁽³⁶⁾ Ibid., p. 664.

⁽³⁷⁾ François Quesnay..., 1958, "Impôts", p. 585, note 6; "Hommes", p. 559; "Extrait des économies royales de M. Sully", p. 671; "Maximes générales...", pp. 954-955. The quotation is from "Fermiers", p. 454. Cantillon, 1952, pp. 42-43. On the radical difference between Cantillon and Quesnay regarding luxury, see Landry, 1958, pp. 46-47, and Spengler, 1954, pp. 128, 364.

of the natural laws most decisive for the kingdom's prosperity is free trade in grain within France, which, it must be remembered, does not exist between the provinces in the eighteenth century. For example, although Languedoc is richer than Brittany, Maine or Poitou, what today would be termed its comparative advantage is nullified because it is prevented from selling its wheat⁽³⁸⁾.

Since free trade in grain guarantees them a "good price", proprietors are willing to increase production by reducing fallows, renewing tenancies, making larger advances, notes Dupont de Nemours about the progress of agriculture in Provence, Brittany, and the Orléans region, which has been achieved, according to him, since the establishment of free trade in grain in 1763. The increase in net product thus enables proprietors to pay higher wages to the "lower orders". Mercier de La Rivière even sees this as the only justification for foreign trade:

"The interest of trade is therefore [for an agricultural nation] the interest of cultivation (...) it is the only and true objective that it should set for its foreign trade if it wants it to contribute to the growth of wealth and population" (39).

To continue the analysis: the good price has two mutually reinforcing advantages. Higher wages obviously produce a rise in living standards for the wage earners because the additional revenue is not absorbed by the increase in the price of subsistence (today we would say that inflation does not cancel out the increase in nominal wages). At the macro-economic level, the revenues that are paid out reinforce consumption, in turn inducing an increase in production and, at the end of the process, economic growth for the nation. The model was forcefully summarized in 1767:

"That people do not believe that cheapness of produce is profitable to the lower classes. For the low price of produce causes a fall in the wages of ordinary people, reduces their well-being, makes less work or remunerative occupations available to them, and wipes out the nation's revenue" (40).

Nor is there any reason to fear the export of grain. It is justified theoretically by two separate but converging arguments. It earns revenues that stimulate consumption, and the resulting demand for labour induces demographic growth. In addition, since manufactured goods incorporate only labour and not wealth, it is better to export grain. The net product thus provides the decisive theoretical argument in favour of free trade in grain. It remains to justify the export policy. Quesnay, who knows that France has an exportable surplus, hammers out four arguments: exports do not create a risk of famine; they can always be balanced by imports; the production of grain in America is not to be feared given the higher quality

(39) Dupont de Nemours, 1770, pp. 36-37, 59-63. Mercier de La Rivière, 1767, II, pp. 326-332 (the quotation is on p. 324). Le Trosne, 1846, pp. 986-989.
 (40) François Quesnay..., 1958, , "Maximes générales...", p. 954.

⁽³⁸⁾ François Quesnay..., 1958, "Grains", pp. 446, 495. Dupont de Nemours, 1770, 1770, pp. 25-31, regarding the obstacles and abuses which aggravated the bad harvests of the years 1766-1769. Mirabeau, 1758, book III, chap. 2, pp. 24-25.

(39) Dupont de Nemours, 1770, pp. 36-37, 59-63. Mercier de La Rivière, 1767, II, pp. 326-

of grain produced in France; and, above all, foreign sales "support the price of foodstuffs", for they prevent a fall in market prices and consequently allow the net product to be maximized. The export of grain has another dimension for the Physiocrats. A capacity to export is proof of true political independence because exports imply self-sufficiency in food, as we would say today. Clearly advocated here is a commercial policy radically opposed to that of Colbert, which consisted in protecting national industries against imports. This can be seen in a text of 1766, "Remarques sur l'opinion de l'auteur de l'Esprit des lois concernant les colonies", where he opposes Montesquieu's assertion contained in chapter XVII of book XXI of L'Esprit des lois, that the home country would have the exclusive right to negotiate with a colony if the latter was founded uniquely for the purposes of increasing trade. Quesnay considered that granting such a monopoly to various trading companies was to ill serve the interests of the state. His target here was the colonial compact (41).

4. Taxes and population

Under the *ancien régime*, taxation is inefficient, for it is not directly based on the real producers of wealth and it is a source of scandalous profits. But Louis XV's attempts at reform, notably in 1749, ran up against strong opposition from the clergy and the nobility. Quesnay, well aware of the true situation, considers taxation to be one of the obstacles to the growth of the population. For example, the $taille^{(42)}$, often vexatious and arbitrary in its application, drives the children of husbandmen to the cities, with harmful consequences for agricultural production. As for the cor $v\acute{e}es^{(43)}$, they reduce the peasants to misery by preventing them from using their labour to ensure the survival of their farm; in the long run this leads to an impoverishment of the country and indirectly sets an obstacle to population growth because the number of men depends on the production of wealth. Thus there is a clear continuity between the micro-economic analysis and the macro-economic level. Quesnay condemns all taxes that impede trade, including international trade: trade should be "straightforward and secure". The note in which the second of these adjectives is explained combines a plea for the natural order with a criticism of fiscal predators and Colbertism:

"[secure] from all fiscal, manorial, etc. impositions, from monopolies, emoluments, inspectors and other needless officers. Tradelike agriculture

⁽⁴¹⁾ On exports: François Quesnay..., 1958, "Fermiers", p. 448; "Grains", pp. 472, 492-495, 502; "Remarques sur l'opinion de l'auteur de l'Esprit des lois", pp. 781-790. Dupont de Nemours, 1770, pp. 40-43. Le Trosne, 1846, pp. 987-989 and 1011-1022 on the colonial compact. For an analysis of the twofold advantage of free trade (for producers and for consumers), see Steiner, 1998, pp. 54-56. On the conflict between the two doctrines, that of the good price and that of cheap grain, developed by Adam Smith, Schumpeter points to the affinities between Quesnay and Keynes (1997, p. 235, note 5). On the function of free trade, Vaggi, 1987, pp. 109-116. On the entire question of foreign trade, Bloomfeld, 1938, pp. 716-735.

⁽⁴²⁾ A tax levied on the wealth and income of the unprivileged classes (translator's note). (43) Forced labour services (translator's note).

must have no other government than the natural order (...). Monopoly in trade and in agriculture has all too often found defenders (...) and the natural order has been perverted by particular interests that were always concealed and always petitioning behind the mask of the general good".

Demographic considerations are clearly not important in themselves; they are inseparable from a crucial issue linked to efficient taxation — the wealth and hence the power of the kingdom.

The wealth of the kingdom? If Quesnay and Mercier de La Rivière want a single tax on the rent of proprietors, it is firstly for reasons of efficiency. All other forms of taxes are "redundant" and in the end fall on the proprietors. The argument is addressed to the king in his role as a great proprietor of land; it is clearly in his own interest that tax be collected on the land rent. One might add: so much the better if the kingdom's population lives better as a result⁽⁴⁴⁾. The power of the kingdom? As often with the Physiocrats, economic theory is in fact inseparable from political philosophy, and the link is particularly strong with respect to taxation. In a text of 1767, "Despotisme de la Chine", Quesnay develops a political model, legal despotism, which Mercier de La Rivière systematized in L'ordre naturel et essentiel des sociétés politiques, published the same year. This model is organized around two fundamental points⁽⁴⁵⁾. The first derives from their economic theory: because wealth is generated by land alone, tax must be levied on agriculture. The second is part of their political philosophy: because property is the foundation of the social order, the government's duty is to defend and protect it so that society can function. The demonstration of the necessity of legal despotism involves a reflection on the nature and role of taxation. In a large kingdom, the domain lands of the sovereign are insufficient to provide adequate resources for the maintenance of order, so the king has to levy taxes. Thus these benefit from a kind of fundamental legitimacy, because they ensure the "security" of property. Since tax is necessarily collected on the revenue of property it can in fact be analysed, to use Weulersee's expression, as a "kind of indispensable joint use by the state of the revenue from its domain". Taking up the legal theory of the eminent domain developed over the previous two hundred years, the Physiocrats hold that since the king is historically the original owner of the soil, he may legitimately subject the proprietors of the land to a tax based on its revenue. As Mercier de La Rivière writes: "in his capacity as sovereign, he is the joint owner of the net product of the land over which he reigns" (46). This is why, with respect to taxes, the question of wealth is inseparable from that of the kingdom's power. But the latter also has a military dimension.

⁽⁴⁴⁾ François Quesnay..., 1958, "Grains", pp. 485, 491 note 21; "Second problème économique", p. 985; the quotation is from "Analyse de la formule arithmétique du Tableau économique", p. 806, note 7; "Impôts", p. 605. Mercier de La Rivière, 1767, II, pp. 91-219. Mirabeau: most taxes "are the enemies, open or covert, of property", 1758, book IV, introduction, pp. 55-59.

⁽⁴⁵⁾ See Georges Weulersse, 1910, II, pp. 36-76.

5. The question of armies

The contrast with the mercantilists for whom the power of the kingdom was measured by the number of its subjects, needs to be stressed from the outset:

> "Those who see the advantages of a large population only in maintaining large armies misjudge the force of a state (...). Large armies exhaust it".

If the population does not exist to provide soldiers for the Prince, how can the defence of the kingdom be assured? The argument reflects the conditions of the period and is perfectly consistent with the economic theory of the Physiocrats. In the eighteenth century, armies are almost entirely composed of mercenaries and artillery units, even if in France the militia system also provides men. To have large numbers of soldiers, money matters far more than men. So the issue is one of financial resources required to recruit and arm the troops, as Ouesnay clearly saw:

> "Large armies are not enough to provide a powerful defence. The soldier must be well paid if he is to be well disciplined, well trained, energetic, happy, and fearless. War on land and sea employs other resources besides men's strength, and demands other expenditure much greater than that necessary for the soldiers' subsistence. Thus it is much less men than wealth which sustains a war"(47).

Mention must be made here of a specific historical factor. Publication of the Tableau économique in 1758 was directly linked to the disastrous Seven Years War (1756-1763) which proved a financial catastrophe due to the military operations in the colonies and the decisive role played by a costly navy. Aware of the seriousness of the financial crisis, Quesnay judges the time right to present the principles of a system intended to restore the kingdom's strength and publishes the Tableau économique on which he has been working for a year⁽⁴⁸⁾. This context gives added significance to the fact that the king appears in the Tableau économique in the second class, that of proprietors. As a proprietor he has little interest in losing on the battlefield the only population that ensures the production of his wealth(49).

The question remains, however, of where to find the men who will ensure the defence of the kingdom? The answer follows logically from the theory of production: in the sterile classes. If this is the case, wealth and

⁽⁴⁶⁾ Legitimacy of taxes: François Quesnay..., "Despotisme de la Chine", p. 928; "Maximes générales...", p. 949. According to Dupont de Nemours (1846a, p. 357): "this net product would not exist without tax: it is only the security that tax confers on property that has sustained and favoured the industry and activities by which cultivation has managed to generate a net tained and favoured the industry and activities by which cultivation has managed to generate a net product of any importance". The king, eminent proprietor: Mercier de La Rivière, 1767, I, p. 67; see also I, p. 267, and II, pp. 30, 32, 34: "this income is the product of joint ownership associated with sovereignty". Dupont de Nemours, 1846a, p. 358.

(47) Quotation: François Quesnay..., 1958, "Grains", p. 485. On the militia: "Hommes", pp. 520-521; "Grains", p. 490, note 21. Financing the armies: "Maximes générales...", p. 975 (it is a "Note sur la maxime XXVI"). Also see "Questions intéressantes...", p. 662.

(48) Weulersse, 1910, vol. II, pp. 62-63.

(49) A similar idea is found in Cantillon: the prince and the landowners are grouped

⁽⁴⁹⁾ A similar idea is found in Cantillon: the prince and the landowners are grouped together, as the only independent economic actors (1952, pp. 31, 40-43).

military power are perfectly compatible because the king can pay his troops with the net product:

"So as not to lack good soldiers and good sailors, it is enough to pay them well, and to procure an abundance of resources for this expenditure through a rich cultivation, and through a foreign trade which increases the revenue of the landed property of the kingdom".

In the article "Impôts", Quesnay explicitly links political and economic arguments. In the end, the number of men is not at all decisive for the power of the state. Here we see a complete break from mercantilism: the number of subjects is not in itself a factor of power for the Prince⁽⁵⁰⁾.

III. A failure and its causes

Physiocracy produced a theory of population and an economic doctrine for agriculture, but no doctrine or policy of population. In our view the fundamental reason for this lies with the treatment of population as a dependent variable. Hence it is not surprising that at the level of doctrine, the Physiocrats are concerned primarily with economic measures for agriculture and that in respect to population they are neither populationists nor anti-populationists. For example, they favour a high price of grain because it translates into an increase of the net product. The latter is the motor of economic growth and indirectly of demographic growth through the demand for labour. It was noted above that in the field of population the Physiocrats reach positions opposite to those of the mercantilists. But why did the Physiocrats, who elaborated a coherent and empirically-based theoretical construct from which a clear economic doctrine followed, only manage to obtain a short-lived implementation of their ideas as policy (between 1763 and 1770 and then from 1774 to 1776), whereas mercantilist doctrines and policies dominated the European scene for over one hundred and fifty years? The reason for their failure is to be sought at the economic and political levels.

1. An unconvincing strategy for development

In terms of a strategy for development, the Physiocrats were right to think that an efficient agriculture was a precondition for general economic growth in France⁽⁵¹⁾. For example, their idea of a single tax on the rent of

(51) See the acute analysis by Meek (1962, pp. 367-370, 379-384, 388) on the aim of the Physiocrats: how to modernize agriculture in an economy that is underdeveloped and subject to the constraints of the *ancien régime*.

⁽⁵⁰⁾ Quotation from François Quesnay..., 1958, "Hommes", p. 524; "Impôts", p. 613. This is the underlying logic of a sentence often quoted: "a kingdom with smaller revenues and more inhabitants would be less powerful and less affluent than another kingdom which had fewer inhabitants and larger revenues" ("Questions intéressantes...", p. 663).

(51) See the acute analysis by Meek (1962, pp. 367-370, 379-384, 388) on the aim of the

land appears a sensible measure in the light of what we now know today about the economic history of the seventeenth and eighteenth centuries. Agricultural prices experienced a long upward movement over the period 1716-1789, albeit marked by strong short-term fluctuations, and the land rent rose much more quickly between 1730 and 1789 than prices and taxes⁽⁵²⁾. Of this the Physiocrats were fully aware. Hence it was logical to concentrate the fiscal burden on this single revenue, which would have yielded far more than the multiple taxes of the ancien régime⁽⁵³⁾. Unfortunately for them, French agriculture, unlike that of England, was only exceptionally organized along the lines of their principles. Duhamel du Monceau's Traité sur la culture des terres, which founded the French agronomic movement, was published in 1750, but although the agronomists were read, and English agriculture admired, the Physiocrats lacked empirical evidence from within France that would have given a resounding demonstration of the validity of their doctrine. In other words, while their analysis of the English model allowed them to achieve a theoretical advance, it was inapplicable at the level of doctrine, because these intellectuals were too remote from the reality of French agriculture.

Probably more damaging to their chances of exercising greater influence were the industrialization and flourishing commercial activity of England which was an ever-present demonstration of the accuracy of the analyses of the Wealth of Nations and the classical school. Contemporaries could see clearly that industry was not at all sterile and that it did create value; and it was obvious that trade generated the capital necessary for England's industrialization, thus weakening the Physiocratic arguments on two fronts⁽⁵⁴⁾. It is worth pausing to consider the English context in the middle of the eighteenth century and evoke the state of mind of contemporaries. Between 1700 and 1780, foreign trade has doubled and the colonies overtake Europe in mercantile exchanges, in particular thanks to the slave trade⁽⁵⁵⁾. Daniel Defoe, author of Robinson Crusoe, could thus write in 1726 that "trade in England neither is or ought to be levelled with what it is in other countries; or the tradesmen depreciated as they are abroad"; as for the Duke of Newcastle, he affirmed that he had been "bred up in to think that the trade of this nation is the sole support of it" and that he had always attempted "to contribute all that was in my power to the encouragement and extension of the trade and commerce of these kingdoms" (56). In France itself, the prosperity of Nantes, Bordeaux and Saint Malo was striking. Between 1716 and 1788, imports from the American Islands rose from 16.7 to 185 million livres and exports from 9 to 78 million. And in

(52) Labrousse, 1993a, pp. 383-415, and 1993b, pp. 450-463.

⁽⁵³⁾ On this point, see Jacquart, 1975, pp. 213, 217 for the period 1560-1660, and Le Roy Ladurie, 1975, pp. 382-383, 583.

⁽⁵⁴⁾ On this point see Meek: the income from foreign trade, much larger in England than in France, oriented classical political economy towards a non-Physiocratic model, because of the actual form of the surplus value. Meek, 1962, pp. 348-350. Eltis, 1988, pp. 269-288.

⁽⁵⁵⁾ Cole and Deane, 1966, p. 8. (56) Quoted by Hill, 1992, pp. 226-227.

the kingdom as a whole, while European trade quadruples, colonial trade grows tenfold⁽⁵⁷⁾. Much larger profits could therefore be made from the colonies and from international trade, a point that was well understood by neo-mercantilists like Melon and Véron de Forbonnais, but also by the monarchy and its agents, and among them men like Graslin, general collector of taxes in Nantes. It is understandable that Quesnay should attempt to refute the argument. While he is completely lucid about England's prosperity ("the slave trade, which is the principal object of this nation's trade"), he can merely affirm but not actually prove that the revenue derived from this sector is appreciably lower than that from livestock and from the grain trade. On the other hand, chapter 7 of *Philosophie rurale*, published in 1763 from the pen of Quesnay, contains a mass of quantitative information about England's agriculture and about the circulation of wealth, on the lines of the Tableau économique. But it does not make the comparison with profits from colonial trade. Quesnay applies a similar reasoning to France:

"The profit from the trade of our colonies is estimated at 15 million; it is a profitable matter for the traders, but a small resource for a great kingdom that is losing thousands of millions through the deterioration of its agriculture" (58).

2. The fear of famine, a political trap

The failure of Physiocracy also has a political explanation. Mercier de La Rivière begins the introductory statement of *L'ordre naturel* with these words:

"We recognize in Kings three principal subjects of ambition: great wealth, great power, great authority: I write therefore in the interest of kings; because I deal with the means by which their wealth, power, authority can raise it to the highest possible degree".

And yet, the relationship of the Physiocrats with political power is, to say the least, complex. Quesnay, who as physician to Madame de Pompadour has the favour of the court, does not publish the article "Hommes" at the time when the question of censorship is raised about the Encyclopédie. And using the same technique as Montesquieu in the Lettres persanes, he uses China as a stand-in for France. According to Fox-Genovese, this accounts for the identification with Confucius and the reference to the sage. But although social and political positions are veiled, the economic criticism is fierce and specific: the articles "Grains" and "Hommes" draw a sharp contrast between Colbert and Sully. The first is openly criticized, the second praised at length (59).

⁽⁵⁷⁾ Figures quoted by Jean Imbert, 1965, p. 395, and by Pierre Léon, 1993a, p. 503. (58) François Quesnay..., 1958, "Fermiers", p. 440. See also a text of 1776 published in the Journal de l'agriculture in June 1766, "Du Commerce", p. 826. Quotation: "Questions intéressantes ...", note 12, p. 656.

The theory of the net product led logically to an economic policy: modernize agriculture to make the state stronger, by favouring the liberalization of internal and international trade in what would be described today as a politically sensitive product, namely grain. The political context supplies the key to understanding why it was impossible to achieve free trade in grain in the last three decades of the ancien régime⁽⁶⁰⁾. Between 1760 and 1775, the question was inseparable from many other crucial issues, including political arbitrariness, fiscal inequality, the financial crisis and the debts of the monarchy. A confusion of issues was to be expected. Hostility to this form of commercial liberalism was based on fear of hunger, and famine was in fact only one dysfunction among others. Although the opposition was deeply divided and as yet had no coherent political agenda, this gave it a political weapon with which to weaken the monarchy. The Physiocrats under-estimated their opponents, being too concerned with establishing a new orthodoxy against a Colbertian mercantilism that remained influential, and even more absorbed by demonstrating the sterility of all non-agricultural activities. They were in fact hostages to the conflict, sometimes hidden, sometimes open, of the *Parlements* against the crown, although they had originally had the support of five of them.

It is useful to recall the stages of implementation of the free trade in grain⁽⁶¹⁾. Act one. Under the influence of Gournay, who died in 1759, and of Quesnay, comptroller general of finance Henri Bertin authorizes on 27 May 1763 the free circulation of "grain, flour, and vegetables throughout the kingdom", while buying and selling operations are rendered practically free⁽⁶²⁾. A royal edict of 19 July 1764 removes all obstacles to the trade in grain and flour except in Paris and its hinterland. Exports and imports are also partially authorized. The preamble to the edict, written partly by Dupont de Nemours who at that time was working with Turgot, is a pure declaration of Physiocratic principles⁽⁶³⁾. In May 1763 the *Parlement* of Paris reluctantly registers the royal proclamation: "if experience proves the disadvantages of this new legislation, we will return to the

⁽⁵⁹⁾ Mercier de La Rivière, 1767, I, vii. For a summary of the question (China as a political model, admiration for Chinese agriculture, the influence on the Physiocrats, but also on other contemporary authors), see Maverick, 1938, pp. 54-67. On Colbert and Sully: François Quesnay..., 1958, "Grains", pp. 473, 481.

(60) Whereas in the nineteenth century it appeared as an obvious reform: the last jacqueries

⁽⁶⁰⁾ Whereas in the nineteenth century it appeared as an obvious reform: the last *jacqueries* took place during the crisis of 1846; under the Second Empire, the fear of food shortages became a thing of the past thanks to economic progress.

⁽⁶¹⁾ This reminder of the facts draws heavily on the very clear account by Joël Cornette (1993) and the indispensable work of Weulersse (1910). Also see Loïc Charles, 1999.

⁽⁶²⁾ On the reassessment of Gournay's positions and on what distinguished him from the Physiocrats, see Charles, 1999, pp. 108-223 and 273-282.

⁽⁶³⁾ These measures were taken with the aim of "encouraging and extending the cultivation of land whose output is the surest source of wealth for a state, maintaining abundance by means of stocks and the entry of foreign wheat, preventing grain from being at a price which would discourage the cultivator, removing monopoly by the permanent abolition of all special exemptions, and by free and full competition in this trade; finally, maintaining between nations this reciprocal exchange of the superfluous against the necessary, so true to the order established by Divine Providence and to the views of humanity which should animate sovereigns" (quoted by Cornette, 1993, pp. 131-132).

former laws". This pointed to the general state of opinion. Since consumers no longer felt protected by price controls on bread, they saw it as a factor of price increase⁽⁶⁴⁾. There was even talk of a "famine pact", of speculations in which the king himself was believed to be involved. The Parlements blocked the application of the measures freeing trade and attacked their architects, the Physiocrats, and particularly Baudeau. In 1767, a bad harvest intensified the attacks against the Physiocrats, who were accused of wanting to starve the people, and Véron de Forbonnais published a rebuttal of Quesnay's Tableau économique. Between 1765 and 1768, three of the Physiocrats, Le Trosne, Mercier de La Rivière and Baudeau, published works defending the group's views, for the hostility of the Parlements was strong. The Parlement of Paris accused the Physiocrats of wanting to deprive the people of bread; Rouen re-established controls on the trade in grain on 15 April 1769, and Paris and Dijon followed suit in the summer of 1770. The account by Dupont de Nemours gives a measure of the situation⁽⁶⁵⁾. L'Averdy, who succeeded Bertin as comptroller general and who was responsible for the edict of 19 July 1764, is dismissed at the end of 1768. After bad harvests in 1769 and 1770, the price of wheat remains high. The regulation of 1764 is finally abolished on 23 December 1770. Only Turgot, the intendant of Limousin, maintains freedom of grain in his province.

Act two. Right after coming to power on 24 August 1774, Turgot initiates a programme of reforms, and considers others of astonishing boldness: reduction of Court expenditure and ministerial salaries, suppression of some aristocratic privileges and unnecessary offices, abolition of the corvées, and naturally, re-establishment of free trade in grain. Over a period of two short years (he was dismissed on 13 May 1776) he will again run up against a coalition of interests. The edict of 13 September 1774, complemented by other measures in the same year, guaranteed complete free trade in grain. But bad harvests in 1774 and 1775 trigger a "guerre des farines" ("flour war"). Rumours again begin to circulate that hoarders are withholding grain to force up prices; riots break out during April in Reims and Dijon, and also in Picardy, Brie, and Beauce. On 2 May 1775, some people assemble in front of the gates of the Versailles palace; on the next day, demonstrators take to the streets in Paris, and two days later the Parlement of Paris requests the king to take the necessary steps to bring

⁽⁶⁴⁾ On the opposition to free trade because it removed all control over the price of bread, and on the protective function of the "fair price", inherited from the medieval economy, cf. Charles, 1999, pp. 24-26, 66-106.

⁽⁶⁵⁾ He deplores the growing opposition to the law. Besides the *Parlements* of Dijon, Paris, and Rouen, "the judges and officers of police of Orleans, Chartres, Pithiviers, Montargis, Châtillon sur Loing, Tours, Saumur, Buzançais, Châteauroux, Fontenay le Comte, Crécy en Brie and many others have issued ordinances opposed to the laws they should have been upholding. On their own private authority they have ordered the implementation of laws that had been formally abolished; they have taxed and controlled trade as they pleased; they have appropriated wheat they found under their control; they have arrested and fined merchants for having dutifully obeyed the laws of 1763 and 1764" (Dupont de Nemours, 1770, pp. 114-115). See also the analysis of the political unrest in Limousin, Alsace and Lorraine (ibid, pp. 118-126).

down the price of bread. The crown employs a mixture of repression and pardon, and the crisis subsides. But in early 1776 it has to face opposition from the corporations, hostile to any form of competition, and from the Parlement which in March remonstrates the king on the question of the suppression of the corvée and of various privileges, denouncing, in the name of the social order on which the monarchy is based, the dangers of equality in the face of taxation. Finally, Turgot is dismissed on 13 May 1776. Such were the turmoils in which the Physiocrats were caught.

3. Economics and policy: fundamental contradictions

At least three fundamental contradictions account for their political failure. First of all, they call insistently for a minimal policing role for the state in the grain trade — and in this connection they invent the famous formula "laissez-faire" — yet they also want the political power to curtail and closely oversee the exercise of property rights. We have alluded to the boldness of Turgot's reforms. Concerning these, and on the subject of fiscal reform or the economic policies of the Physiocrats, Samuels is correct to speak of "an utilitarian understanding of the social function of private property (...) necessarily involving the state in the continuing reconstitution of private rights" (66). This far from liberal conception was the logical outcome of what has to be considered an authentic programme of economic development based on the modernization of agriculture, which, as we have shown at some length, was the fundamental condition for restoring the kingdom's power. In other words, the Physiocrats sought "the substitution of their own program of agriculturalism for that of Colbertism"(67). Adam Smith, while acknowledging their contribution to the development of the science of economics, did not fail to point out that Physiocracy was a system, just as mercantilism had been one.

Furthermore, Fox-Genovese is correct to stress that advocating free trade in grain to a government that traditionally held stocks was tantamount to forgetting that the King, father of the nation, had an obligation to be concerned about his subjects' subsistence needs and that behind this moral duty lay a political calculation: hunger is a cause of social instability⁽⁶⁸⁾. The Physiocrats are limited in their support to a minority of innovative agriculturists, since outside of certain circles most of French agriculture in the eighteenth century remains largely static (69). With such a narrow social base they depend on the good will of the monarch for getting their ideas accepted, while he is torn between opposing interest groups. But because they also criticize the taxes and the privileges granted by the crown, they cannot count on its unconditional support. In fact, in

⁽⁶⁶⁾ Samuels, 1961, p. 96.

⁽⁶⁷⁾ Samuels, 1962, p. 149. (68) Fox-Genovese, 1976, p. 59. (69) Harold Laski (1962, pp. 122-125) gives an acute analysis of the gap between the ideal agriculture they wanted for France and the reality.

the name of a truth based on the economic science they had discovered, they want nothing less than to force the King, despite his own stakes as a great landowner, to abandon any room to manoeuvre and adopt the Physiocratic solution. It is a denial of politics in the name of technocratic knowledge.

Let us return briefly to their political model, legal despotism, and to its political implications. It is based, as we know, on an analysis of property: property and sovereignty are inseparable in the person of the King who is — and this is a crucial point for their demonstration — the largest landowner in the kingdom. Hence his legitimacy is no longer solely by divine right; it has an economic or rather a landed origin. The King is therefore a despot in the literal sense of the term, that is to say, he is "master and owner by patrimonial entitlement" of the soil. But he is a *legal* despot who must above all respect the law. He is thus radically different from the "personal" or "arbitrary" despot who uses force to oppress. His role is to defend property and natural laws, and through these the natural order, against anything that threatens them: the selfishness of monopoly holders, the insubordination of the lower administration, the riots provoked by the high price of grain.

In the face of these dangers, the tutelary authority must be "unique and impartial" (70). Hence their natural preference for hereditary monarchy, which combines economic and political legitimacy. They believe it is much more effective than the separation of powers advocated by Montesquieu, which rests upon too delicate a balance, or than aristocratic government, which can "by confederation form a power above the law" (71). As for democracy, where legislative power lays with the nation, it has two drawbacks. Its very principle, the *political* representation of the nation, is at odds with the necessary *economic* inequality of property. The voting of laws intended to protect this inequality cannot be entrusted to an assembly elected according to the principle of equality between citizens. Most serious, however, "the ignorance and prejudice that predominate in the lower orders, and the uncontrolled passions and moments of fury they fall prey to, expose the state to disorder, revolt and appalling disasters" (72).

The consequences of such a position in the closing stages of the ancien régime are not hard to imagine. The Physiocrats were close to the Encyclopedists in requesting a minimum role for the state at the economic level — limited to guaranteeing freedom of grain — but they differed from them by wanting to do this under a régime of legal despotism. Advocating an authoritarian intervention of the political power to ensure economic liberty was, to say the least, contradictory. Thus, the model of legal despotism could only raise the hackles of the Encyclopedists, and it earned

⁽⁷⁰⁾ François Quesnay..., 1958, « Despotisme de la Chine », p. 919.

⁽⁷¹⁾ Ibid., p. 918. (72) Ibid., p. 919.

the Physiocrats the hostility of Galiani, Diderot, Rousseau, Mably and Grimm. It contributed to their isolation and hastened their failure⁽⁷³⁾.

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Overall, it is indeed the interaction between politics and economics that explains the failure of the Physiocrats. Although their theory was based on good quality empirical observations, the model they developed had little chance of convincing their contemporaries at the doctrinal level. and especially not in the political context of the late ancien régime. This has important methodological implications for the study of ideas on population. That these ideas were a marginal concern to the Physiocrats, for whom the essential issue was free trade in grain and the development of agriculture, matters little. In the very century when demography acquired a theoretical formulation, they cannot be analysed independently of the political reality, as we have argued⁽⁷⁴⁾. Our discussion has drawn on various disciplines and has been conducted at several analytical levels, but the last word belongs to history. The "long" history of economic structures and ideas made possible the theoretical and doctrinal genesis of Physiocracy, centred on agriculture and as a consequence on population, whereas the "short" history of the economic and political events brought about its failure. But Physiocracy's fundamental theoretical contribution — that population was economically determined — was to have a lasting success.

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⁽⁷³⁾ On the distinction between the two despotisms, see Mercier de La Rivière, 1767, I, pp. 109-110 and 278-317. Regarding the limits to the exercise of tutelary authority: "It is essential that the tutelary and protective power of the laws should never become destructive of the laws" (ibid., I, p. 81). The expression "unique and impartial" is Quesnay's ("Despotisme de la Chine", p. 919). On the criticism of aristocratic government and of democracy: Mercier de La Rivière, 1767, I, pp. 202 and 234; Dupont de Nemours, 1846a, pp. 359-361; Baudeau, 1846c, p. 786-787. On the isolation of the Physiocrats, see Schelle, 1888, pp. 146-153. It must be noted that Dupont de Nemours later renounced legal despotism and defended representative parliamentary government.

⁽⁷⁴⁾ We agree with Jean Cartelier when he writes that "On the one hand, the demonstration of Quesnay's contribution to political economy would imply excluding from consideration everything that attaches him to a particular period that is gone forever (...). On the other hand, it is not possible to divest Quesnay's thought of all that makes it a specific historical reality, irreducible to any generalization" (1991, p. 11).

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CHARBIT Yves.- The Political Failure of an Economic Theory: Physiocracy

Physiocracy, the "rule of nature", which held agriculture to be the sole source of wealth, was the first theoretical account of the relationship between the economy and population. The centrality of agriculture is the key to understanding the theory of population. Population is a dependent variable, and from this a number of implications flow concerning luxury, free trade, the fiscal system, and the army.

The "Physiocratic movement" failed, however, to win acceptance for its system and this political failure was inextricably linked to the theoretical construct. The Physiocrats' strategy for development lacked credibility compared with the alternatives, in particular colonial trade. Also damaging was the association of their views with the fear of famine. Finally, they were unable to resolve the impossible contradictions between rigour in economic theory and the pressure of political realities. The result was their near total isolation.

CHARBIT Yves.- El fracaso político de una teoría económica: la fisiocracia

La fisiocracia, el "gobierno de la naturaleza", que considera a la agricultura como la fuente exclusiva de riqueza, es la primera teoría de las relaciones entre la economía y la población. La posición otorgada a la agricultura permite comprender la teoría de la población: ésta es una variable dependiente y de ella se derivan varias implicaciones relativas al lujo, a la libertad de comercio, al sistema impositivo y a los ejércitos.

No obstante, el "movimiento fisiocrático" no logró imponer su modelo; su fracaso politico es indisociable de su construcción teórica: en comparación con otras alternativas, y en particular con la opción del comercio colonial, su estrategia de desarollo era poco convincente; sufrió las consecuencias de la amalgama que se hizo entre esta teoría y el miedo al hambre; se encerró en contradicciones insolubles entre el rigor de la teoría económica y la presión de los retos politicos. Todo ello derivó en su marginación casi total.